

- Contactless sensing device
- Model "H" with hollow shaft
  - Model "K" with clamping flange
  - Model "S" with synchro flange
- Resolutions: 4 up to 5000 counts per revolution
- Small mounting volume
- Large range of supply voltage
- Protected against short circuits and reverse polarization
- Protection grades IP 64 and IP 65



## Construction

Flange in brass, case in steel, shaft in stainless steel - ball bearings with sealing - GaAs diode and photo-array with comparator and trigger circuits for long life stabilization - SMT layout.

## Electrical data

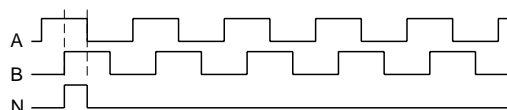
- Standard resolutions: 1000 and 1024
- Optional resolutions: 4, 11, 12, 15, 25, 30, 32, 36, 50, 60, 75, 90, 100, 125, 128, 150, 180, 200, 250, 256, 300, 360, 400, 500, 600, 2000, 2048, 3000, 3600, 5000
- Supply voltage  $V_S$ : 4,5 to 30 VDC
- Supply current  $I_S$ : 35 mA ( w / o load)
- Output level ( ) :
  - Low max. 375 mV at  $I_{Low} = 10$  mA
  - High  $V_S$  minus 0.8 V
- Signal current ( $I_A$ ): 20 mA max.
- Output frequency: 200 kHz
- Pulse rate: 1:1  $\pm$  10 %
- Phase shift: 90°  $\pm$  18°
- EMV: EN 50081-2, EN 50082-2

## Mechanical data

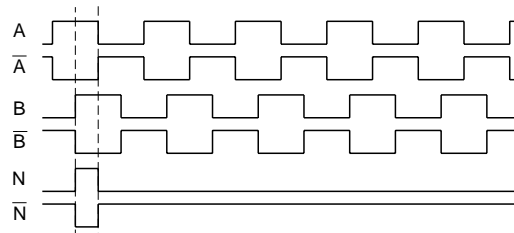
- Shaft diameter: 4 mm
  - options 3, 5, 6 and 6.35 mm
- Operating speed: 18.000 min<sup>-1</sup> max.
- Inertia of rotor: 0.8 gcm<sup>2</sup>
- Wind-up torque:
  - Model "K" < 0.05 Nm
  - Model "S" < 0.005 Nm
  - Model "H" < 0.005 Nm
- Permissible shaft load:
  - axial 20 N
  - radial 20 N
- Mass: 0.125 kg
- Lead: 8 wires, screened 0.05 mm<sup>2</sup>  
1 m, w / o connector
- Lead exit: radial (axial at option)

## Output signals

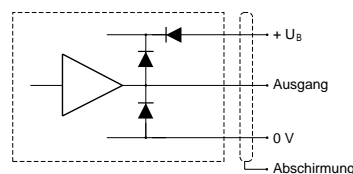
Variant VN



Variant XN



## Output circuit (each channel)

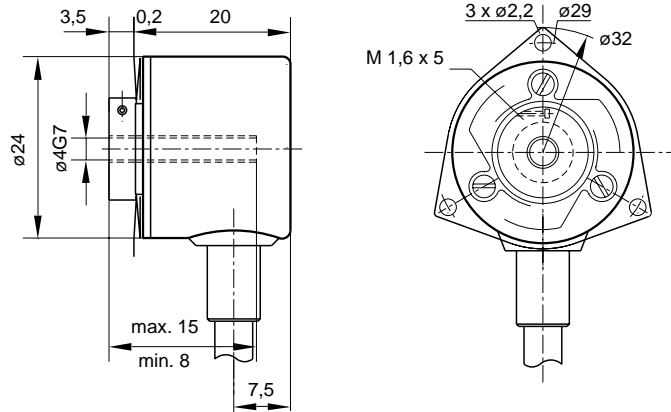


## Environmental data

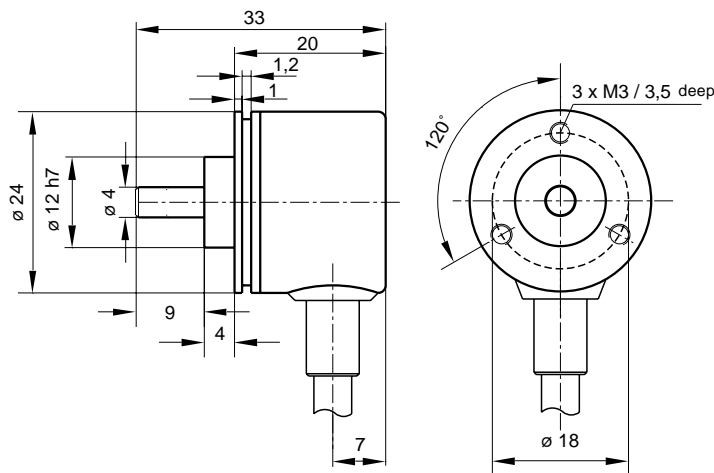
- Operating temperature range: - 40° C to + 85° C
- Storage temperature range: - 40° C to + 85° C
- Resistance to shock: 1000 m/s<sup>2</sup> ; 11 ms (DIN IEC 68)
- Resistance to vibration: 10 Hz ... 2000 Hz ; 100 m/s<sup>2</sup> (DIN IEC 68)
- Protection grade (DIN 40 050)
  - GIO 24-H IP 64
  - GIO 24-S IP 64
  - GIO 24-K IP 65

## Dimensions in mm

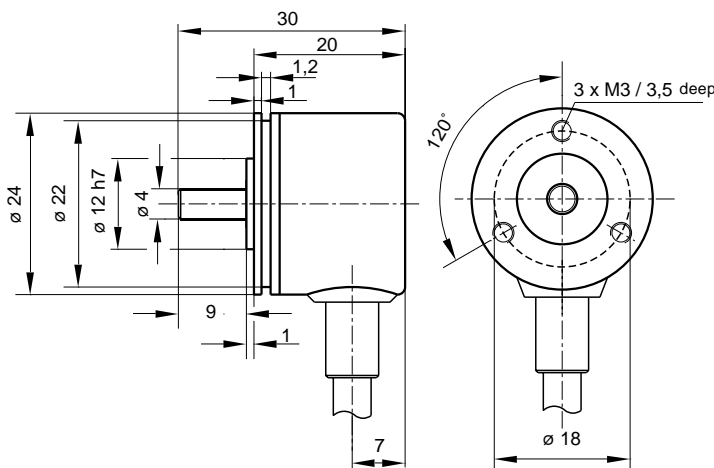
Model GIO 24-H



Model GIO 24-K

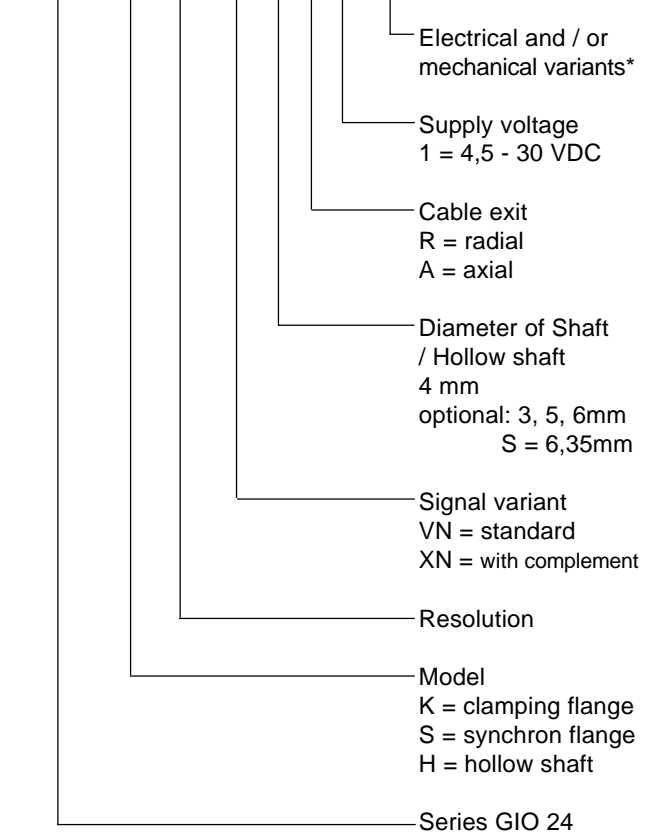


Model GIO 24-S



## Order code format:

**GIO 24 - K 1000 VN 4 R 1 A01**

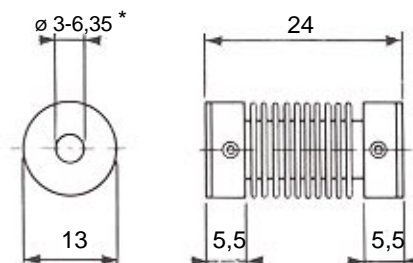


## Electrical connections

Output	VN	XN
+V <sub>s</sub>	brown	red
-V <sub>s</sub>	white	blue
Channel A	green	pink
Channel A inv.	---	grey
Channel B	yellow	green
Channel B inv.	---	yellow
Zero	grey	white
Zero inv.	---	brown

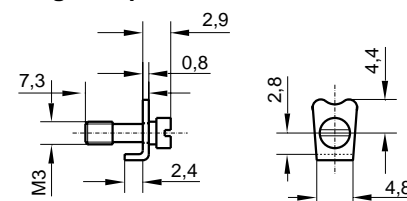
## Mounting accessories (to be ordered separately)

### Coupling 420/4 (alternatively 413/4 Oldham type)



\* The following bores are available:  
3, 4, 5, 6 and 6.35 mm

### Fixing clamp RW



Diameter of reference circle:  
30 mm